Work Order ID 102196

Quality Control

102196

Page 1

May-27-13 12:41:06 PM Accept Item ID: D3953-3 *N900040100* Setup Start Revision ID: Stop Gas Spring Stud, Lid Item Name: **Start Oty: 20.00** Start Date: 5/27/13 **Cust Item ID:** Req'd Qty: 20.00 Required Date: 5/27/13 **Customer:** Reference: Run Date: Tooling: Approvals: Process Plan: Date: Stop SPC (Y/N): Date: Date: Sequence ID/ Operation Tool # Plan Reject Set Up/ Tool ID Reject Accept Insp. Description Qty Number Stamp Work Center ID Run Hours Code Otv **Draw Nbr** Revision Nbr D3953 C 100 0.00 *100* 0.00 Doosan Memo Turn as per folio FA852 & DWG Doosan Lathe FOLIO REV: 13-6.8 DWG REV: **DEBURR** 110 QC2- Inspect parts off machine FAI/FAIB 0.00 *110* QC Memo

											DQA:		ite	
NCR:	es /	No				WORK ORDER NON-O	100	NFORI	MANCE / UP	DATE	QA Closed:	Da	ite:	
						DISPOSITION			-	AGAINST DE		·		
Work Orde	-					Rework Scrap Use-as-is		1	Skid-tube Machining noforming	Crosstube Small Fab Finishing	-	Water Jet d. Eng. Coor. re/Packaging		Engineering Quality Other
NCR 1	No		-			Work Order Update]		Large Fab	Composite]	Supplier		
Root					Descri	ption of work order update		Initial	Ac	tion	Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Desc	ription	Date	Verificatio	n	QC Inspector
Doc/Data														
Equip/Tooling							1		!					
Operator														
Material													ł	
Setup														
Other													1	
Process													- 1	
Supplier	П						ł						- 1	
Training							1						- 1	
Unapproved														• •
					_	F	AUL	T CATE	GORY					
Landi	ng Gea	r				General		_			_			
	Ве	nding				Bend	L	Grain			Ovalized			Pressure/Forced
	Ce	ntre No	t Concer	ntric to (o/s	BOM/Route	L	Hardwa	re		Over/Under	tolerance	Ш	Temperature/Cure
	Cr	acks				Broken/Damaged		Inspect	ion Incomplete		Part Incorred	ct	\square	Weld
	Cr	ushed/0	Crimped			Burrs		Instruct	ions Incomplete/	Unclear	Part Lost/Mi	ssing		Wrong Stock Pulled
	\Box cu	ffs				Contamination		Mainte	enance		Part Moved			

Mislabeled

Out of Calibration

Out of Sequence

Outside Dimensions

Misread

Offset

Positioned Wrong

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Ord <i>May-27-13 12</i>		02196			*102	196*							Page
Item ID: Revision ID:	D3953-3				Accept	*N900	040	100	*	Setup			S1*
Item Name:	Gas Spring	Stud, Lid				·		•			Stop	*N:	S2*
Start Date:	5/27/13	Start Qty: 20.00		*20*		Cust Item II) :						
Required Date	e: 5/27/13	Req'd Qty: 20.00	*	*20*		Customer:							
Reference:	•					•							
Approvals:	Process P	Plan:	Date:		Tooling:	Da	te:	-		Run	Start	*N	R1*
	QC:		Date:		SPC (Y/N):	Da	te:				Stop	*N	R2*
Sequence ID/	ID.	Operation Description		w - x - 	Set Up/	Tool ID	Tool #	Plan Code	Accept	t Re	•	Reject Number	Insp.

Insp. ject Number Stamp ont 13/06/10 QC8- Inspect parts - second check 0.00120 0.00 Memo

Identify as per dwg & Stock Location: 130 0.00

Quality Control

130 5+076 0.00 Packaging Memo Packaging

140 QC21- Final Inspection - Work Order Release 0.00

*14**0*** 0.00 Memo

Quality Control

Page 2

										DQA:	Date:	
NCR: Ye	es / No				WORK ORDER NON-	·COI	VFOR	MANCE / UP	DATE	QA Closed:	Date:	
					DISPOSITION				AGAINST DI	EPARTMENT,		
Work Orde	r:			· · · · · · · · ·		-, I				¬		
Part No					Rework Scrap Use-as-is Work Order Update		Thern	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	- 3	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root		<u> </u>		Descri	iption of work order update	$\overline{}$	nitial	Ac	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
oc/Data quip/Tooling Operator Material etup Other Process supplier Training												
Inapproved		<u> </u>	11			FALII	T CATE	GORY		<u> </u>		L
** Landin	g Gear				General							
	Bending Centre Note Cracks Crushed/ Cuffs Heat Treat Inspectio Ripples in	Crimped at n Strip in n Bend	Tube		Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing		Instruct Mainte Mislabe Misread Offset	on Incomplete ions Incomplete/ nance led	Unclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct ssing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
Γ	Turning	Contiones			Finish		Out of Sequence					

Outside Dimensions

Wave/Twist in Tube

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

May-27-13 12:41:06 PM

Work Order ID:

102196

Parent Item:

D3953-3

Parent Item Name:

Gas Spring Stud, Lid

Start Date: 5/27/13

Required Date: 5/27/13

Page 1

Start Qty: 20.00

Required Qty: 20.00

Comments:

IPP RevA: New issue DD verified by:EC

IPP Rev:B as per dwg revC DD

	10.03.02 verified b	y:EC											
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304RO.750 304 SS Roundbar .750		Purchased	No			100	f	76.4390	0.125	2.631578	12	[/]	-6-5
				Location		Loc Qty	<u>Lo</u>	c Code		,			
				MAT028		60.005	,						
				1165	501	3.492	4						
				1166	523	1.708				 			

Location	Loc Qty	Loc Code	,
MAT028	60.005		
116501	3.492		
116623	1.708		***************************************
121282	4.89		
122386	5.066		
123721	44.849		SFF
MAT029	16.434		
117481	3.434		
118509	12.4		
120124	0.6		

NCR:	⁄es	/ No				WORK ORDER NON-	COI	NFORM	MANCE / UPD	ATE		·			
												QA Closed:	C	ate:	
Work Orde	er:					DISPOSITION				AGAINST	Γ DE	PARTMENT	PROCESS		
Part I	- . No.					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite			Water Je d. Eng. Coo e/Packagin Supplie	r. g	Engineering Quality Other
Root					Descri	ption of work order update		Initial	Actio	n		Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Cł	nief Eng	Descrip	otion		Date	Verificati	on	QC Inspector
Doc/Data	Ш														
Equip/Tooling							1								
Operator	Ш					i.									
Material	Ш													İ	
Setup	Ш													ŀ	
Other	Ш		<u> </u>												
Process	Щ							1							
Supplier	Ш		ļ											:	
Training	Ш														
Unapproved			<u> </u>			·	<u> </u>								
							AUI	LT CATE	GORY				_		
Landi		1				General	_	7			_	1			
		Bending				Bend	\vdash	Grain			\vdash	Ovalized		\dashv	Pressure/Forced
	\vdash	Centre No	ot Concer	ntric to (^{O/S}	BOM/Route	\vdash	Hardwa			\vdash	Over/Under		\vdash	Temperature/Cure
	\vdash	Cracks				Broken/Damaged	\vdash	- 1 '	on incomplete		\vdash	Part Incorred			Weld
	-	Crushed/	Crimped		<u> </u>	Burrs	-	4	ions Incomplete/Ur	iclear	\vdash	Part Lost/Mi	ssing		Wrong Stock Pulled
	_	Cuffs			<u> -</u>	Contamination	-	Mainte			<u> </u>	Part Moved			
	\vdash	Heat Trea			-	Countersink	\vdash	Mislabe			<u> </u>	Positioned W	_		Out.
	-	Inspectio	•	Tube	<u> </u>	Cut Too Short	\vdash	Misread	I			Power Loss/S	ourge		Other
	Н	Ripples in		_	<u> </u>	Drill Holes	<u> </u>	Offset							· · · · · · · · · · · · · · · · · · ·
		Torque W	laves in E	extrusion	า [Drawing		JOut of C	Calibration						

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

DART AEROSPACE LTD	Work Order:	102196
Description: Gas Spring Stud, Lid	Part Number:	D3953-3
Inspection Dwg: D3953 Rev: C		Page 1 of 1

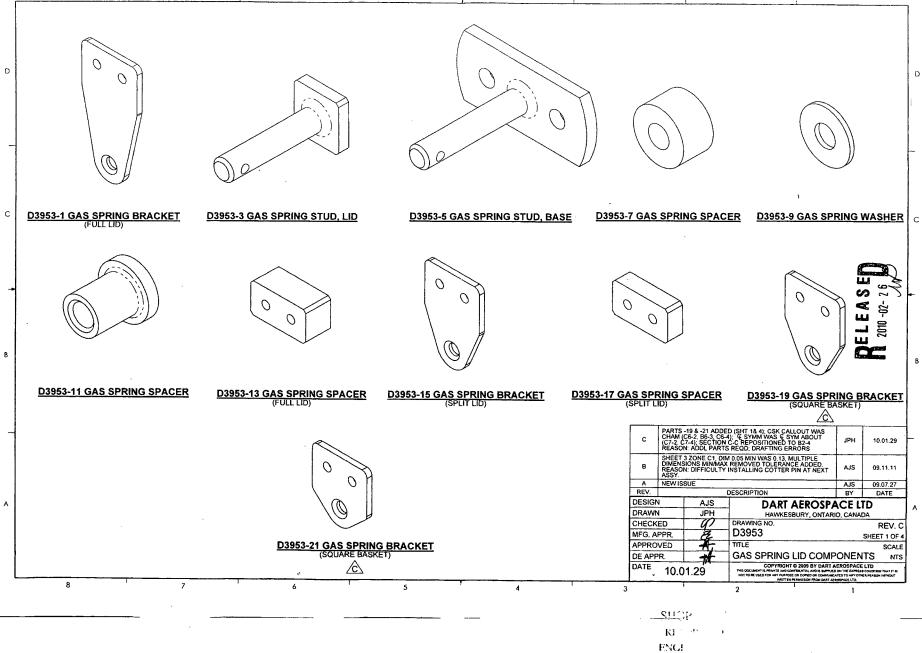
FIRST ARTICLE INSPECTION CHECKLIST

The line line line line	X	First Article	Prototype
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Drawing		Actual			Method of	
Dimension	Tolerance	Dimension	Accept	Reject	Inspection	Comments
Ø0.75	+/-0.030	·131			17-3	Vera
0.56	+/-0.010	500				
0.281	+/-0.010	.281		•		
1/4-28 UNF-2A	N/A					
Major Ø	Max = 0.2490 Min = 0.2425	-243	/			·
M.O.W.	Max = 0.26687 Min = 0.26357	.265				
Ø0.098	+0.004/-0.001	.078	/			
Ø0.250	+/-0.010	. 243				
0.170	+/-0.010	119				
0.330	+/-0.010	. 330				
0.13	+/-0.030	-133	/			
R0.06	+/-0.030	202	, ,			
1.31	+/-0.030	1.314	/		-	
-						
			,			

Measured by:	Audited by:	C12	Prototype Approval:	N/A
Date: / 3 - 6 - 5	Date:	13/06/10	Date:	N/A

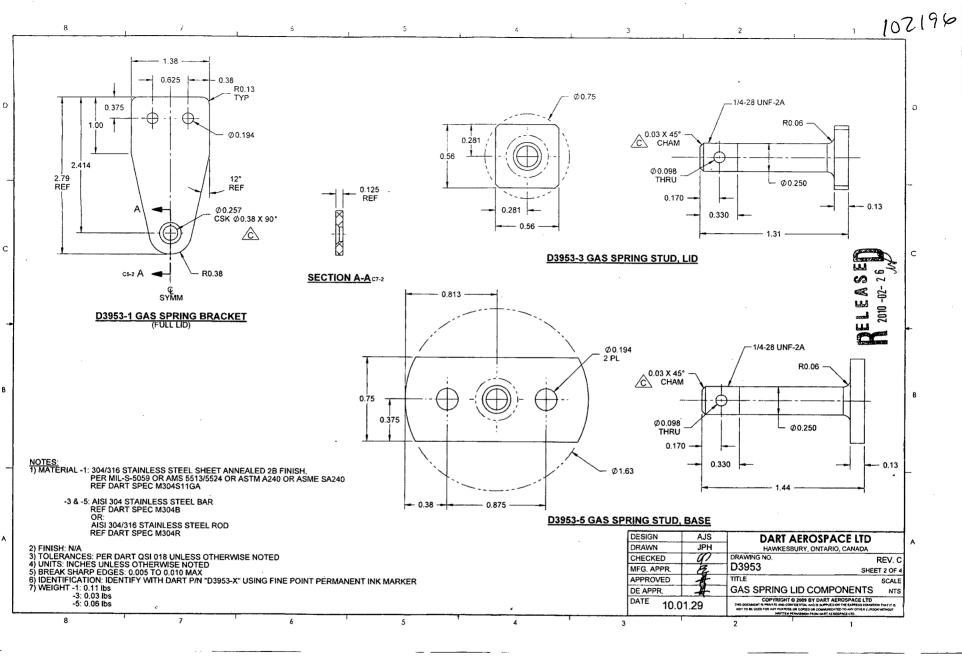
Rev	Date	Change	Revised by	Approved
Α	09.10.22	New Issue	KJ ,	
В	09.12.14	Dwg Rev updated	KJ A	M



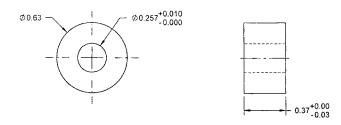
ENGI UNCON R SUBJECT IN VALUE WORLD

NO 102196 MUST

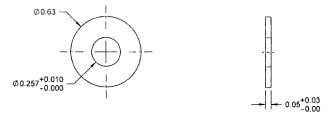
1305-30



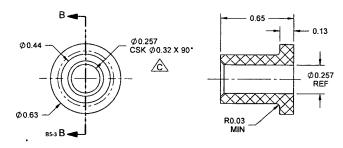
D



D3953-7 GAS SPRING SPACER

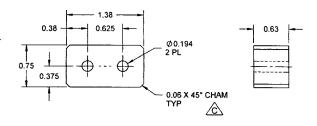


D3953-9 GAS SPRING WASHER



D3953-11 GAS SPRING SPACER

SECTION B-B 87-3



D3953-13 GAS SPRING SPACER

DELEASI 1 2010 -02- 26

DESIGN	AJS	DART AEROSPACE LTD				
DRAWN	JPH	HAWKESBURY, ONTARIO, CANADA				
CHECKED	a	DRAWING NO.	REV. C			
MFG. APPR.	E	D3953 SHEE	ET 3 OF 4			
APPROVED	-	TITLE	SCALE			
DE APPR.	#	GAS SPRING LID COMPONENTS	NTS			
DATE 10.0	1 20	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRINATE AND COMPRESSITIVE, AND IS SUPPLIED ON THE EXPRESS COMPITION THAT IT IS				

NOTES: 1) MATERIAL -7,-9 & -11: DELRIN II 150E OR ACETRON GP ACETAL, BLACK REF DART SPEC M-DELRIN-R

-13: AISI 304 STAINLESS STEEL BAR REF DART SPEC M304B

8

Α

2) FINISH: N/A
3) TOLERANCES: PER DART OSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.05 TO 0.010 MAX
6) IDENTIFICATION -13 ONLY: IDENTIFY WITH DART P/N "D3953-13" USING FINE POINT PERMANENT INK MARKER
7) WEIGHT -7/-9-11: < 0.01 ibs EACH
-13: 0.17 ibs

